

**BMW of North America  
Vehicle Inspection Report**

To: Anne Burris

From: Brian Sime

Date: 8/13/2012

Vehicle Owners Name: Karen White  
VIN: WBAPN73569A265980

Model: 2009 335d

Mileage: 143,782 from August 10<sup>th</sup>, 2012 customer last service visit at Casey BMW

RO# 336153 Dated 9/16/2010 Mileage 50,368 Casey BMW

- Per dealer visit, heavy soot/ carbon deposits were throughout the intake manifold, cylinder head, intercooler, EGR (exhaust gas recirculation), Particulate Filter (PF) and turbochargers. Cylinder head and all related intake parts were authorized replacement under Eastern Region Goodwill. Car was out of warranty.

**The terms of the BMW Warranty expire/ed on 5/29/2013 or 50,000 miles whichever occurs first.**

RO# 23686 Dated 10/23/2009 Mileage 11,587 Casey BMW

- 1<sup>st</sup> engine oil service
- Standard Scope
- Micro filter replacement
- DEF (diesel exhaust fluid) replacement
- Loaner car provided

RO# 254170 Dated 11/23/2009 Mileage 20,579 Casey BMW

- Xenon lights control unit permanent failure
- Oil Service
- Standard Scope
- Performed DEF replacement
- Loaner car provided

RO# 263177 Dated 12/28/2009 Mileage 24,073 Casey BMW

- Oil Service

- Left rear taillight\* add on repair OK by service manager Tech replaced faulty left rear tail light
- DEF (diesel Exhaust fluid) change
- Standard Scope
- Loaner car provided

RO# 272184 Dated 2/01/2010 Mileage 28,865 Casey BMW

- Vehicle check
- Standard Scope
- Loaner provided

RO# 277115 Dated 2/25/2010 Mileage 30,551 Casey BMW

- C/S SRS (Supplemental restraint system) light on.
- Oil Service
- DEF (diesel Exhaust fluid) service
- Loaner provided

RO# 288728 Dated 4/01/2010 Mileage 33,980 Casey BMW

- DEF fluid service
- Customer informed tires are worn past tread wear
- Loaner car provided

RO# 296492 Dated 4/30/2010 Mileage 37,009 Casey BMW

- Air Filter replacement
- Scope
- Diesel fuel filter replaced
- DEF fluid service
- Loaner car provided

RO# 306158 Dated 6/01/2010 Mileage 41,281 Casey BMW

- C/S Drivers seat belt buckle will not attach properly. R/R Drivers seat and replaced Seat belt buckle.
- CAMPAIGN 0013890100 US DIESEL PROGRAM CONTROL /Dealer reprogrammed vehicle per campaign.
- Loaner car provided

RO# 313496 Dated 6/25/2010 Mileage 44,093 Casey BMW

- Oil service
- DEF fluid service
- Loaner car provided

RO# 320848 Dated 07/23/2010 Mileage 46,390 Casey BMW

- C/S check engine light on Feels like it is missing and not running well. Short tested vehicle FC's 2E3C 4CE8 480A 4D35 4B10. Test plan stated "replace throttle"
- FC 4D35, Per SIB11 02 10. Clean metering valve for SCR (selective catalyst reduction) system
- Loaner car provided

RO# 326814 Dated 08/07/2010 Mileage 47,811 Casey BMW

- C/S check engine light on. Engine control unit stored FC 4B10/4B11 followed test plan 1749 0000006 .4 Correction Dealer found poor fuel quality in vehicle causing poor idle quality. Advised customer to use Ultra low sulfur grade diesel per government regulations.
- Replaced wiper blades.
- Loaner car provided

RO# 336153 Dated 10/22/2010 Mileage 50,368 Casey BMW

- C/S engine running poorly Check engine light on. Tech found heavy soot from miles of using Diesel fuel with greater than 15 ppm sulfur content. Cylinder head and intake system (complete) needed replacement. Final outcome was complete engine replacement since 2 cylinder heads were received damaged. \$25,678 Goodwill payment to dealer

RO# 350492 Dated 10/22/2010 Mileage 50,759 Casey BMW

- Market team replaced 2 worn front tires under goodwill ER for customer satisfaction. ER goodwill means Eastern Region paid for this repair. This was not a warranty defect in material and workmanship. \$579.20 Goodwill payment to dealer.

RO# 373244 Dated 10/22/2010 Mileage 55,730 Casey BMW

- Bi-annual brake fluid change.
- Interior micro-filter replacement
- Oil change
- Standard scope

RO# 387811 Dated 03/29/2011 Mileage 63,906 Casey BMW

- Bi-annual brake fluid change.
- Interior micro-filter replacement
- Oil change
- Standard scope
- Diesel fuel filter

RO# 524660 Dated 08/08/2012 Mileage 143,782 Casey BMW

- Performed Service Action Service information Bulletin 18-04-12. "Metering units installed on certain E90 vehicles with the M57Y diesel engine will clog due to crystallization of the DEF fluid. An improved metering unit has been introduced." Ms. White's vehicle now has updated Metering unit installed. The old metering valve had no affect on the original complaint as this metering unit sprays the DEF (Diesel Exhaust fluid) into the exhaust

stream after the PF (particulate filter) and before the SCR (Select Catalyst reduction). When the unit crystallizes, different fault codes set compared to the ones that set when the intake was full of soot. The issue she had was soot build up before the particulate Filter. The PF traps all the soot and stores it until the DDE (Diesel engine electronics control unit) determines the filter is to capacity. It will then trigger a regeneration process to burn all the soot in the system. If too much soot is present, it will not be able to burn it all off. This will cause the soot to collect in the inlet stream causing damage to EGR (exhaust gas recirculation) valve and all other intake components.

I worked with Casey BMW to get Ms. White's vehicle repaired in a timely manner. Unfortunately, two of the cylinder heads shipped to the dealer from Germany were damaged in shipping. Service Manager Chris Culp stated directly to me that the customer had told him would really appreciate a new engine and if this was done, she would be cool with the situation. Since the car was down for and extended time, I authorized a complete engine along with the needed intake, intercooler, turbo charger and PF (particulate filter).

During the repair process, Dealer found the customer not using correct 15 ppm (parts per million) sulfur content fuel. The customer was using non-approved diesel fuel which over time will over work the DPF (Diesel Particulate filter) and clog the intake system via the EGR (Exhaust Gas Recirculation system) with soot /carbon like substance. This buildup makes it difficult for the air to reach the cylinder for combustion. Since the drivability issue was documented prior to warranty mileage expiration, the market team covered complete repair as a good will gesture. However, it should be clearly understood that this concern was directly related to the type of fuel the customer was using and not to a defect in material and/or workmanship. Although the fuel was not tested, the only way that such a high amount of soot could end up in the intake system was if high sulfur fuel was being used regularly in the car. The customer claimed that there were no 15PPM fuel stations in her area and she could only use higher sulfur content fuels. This is unlikely, as the 15PPM fuel is widely available. The use of this fuel is mandated by the EPA for use in BMW NA's diesel engines. It is the customer's responsibility to ensure the correct fuel is used per owner's manual.

Owner's manual online Edition part number 01 41 2 602 099

From page 191

"BMW Advanced Diesel: required fuel BMW Advanced Diesel: required fuel  
Ultra-low sulfur diesel Ultra-low sulfur diesel

The engine of your BMW is designed for diesel with low sulfur content: Ultra-low sulfur diesel ASTM D975-07a. Refuel with ultra-low sulfur diesel only. The percentage of biodiesel in the fuel may not exceed 5%; this type of fuel is referred to as B5. Do not refuel with gasoline. After refueling with the wrong fuel, e.g. with gasoline, do not start the engine; otherwise, engine damage may occur."□

The DEF fluid change is done per every oil change. There are additional fluid fills during winter months, high altitude and aggressive driving. This is a normal maintenance issue. Below is from the owner's manual.

Page 192

"The concept

BMW Advanced Diesel reduces nitrogen oxide in the diesel emissions of your vehicle by means of a mechanism that injects diesel exhaust fluid, a reduction agent, into the exhaust tract. A chemical reaction occurs in the catalytic converter that minimizes the nitrogen oxide content. To

be able to start the engine as usual, a sufficient amount of diesel exhaust fluid must be present in a separate reservoir.

#### Warming the system

To warm the system to its operating temperature, after starting with a cold engine, the automatic transmission delays shifting to the next higher gear, if necessary.

#### Reserve display:

A display in the instrument cluster informs you about the remaining distance you can drive with the fluid remaining in the reservoir. The reserve display appears beginning at approx. 1,000 miles/ 1, 600 km before the supply is used up. When this reserve display appears in the instrument cluster, have diesel exhaust fluid refilled to avoid not being able to start the engine.

#### Diesel exhaust fluid at minimum level:

Even if the display indicates “– mis”, the engine continues running if it is not switched off and if all other requirements continue to be met, e.g. a sufficient supply of fuel. Do not drive to the end of the indicated distance as it will no longer be possible to start the engine after it is switched off.”

#### Page 193

##### Having diesel exhaust fluid refilled:

Diesel exhaust fluid is refilled by your BMW center during regular service. If the service intervals are adhered to, it generally does not need to be refilled between service appointments. Under certain conditions, e.g. especially frequent accelerations or operation of the vehicle at high altitudes, it may become necessary to refill the fluid between service appointments. When this reserve display appears in the instrument cluster, have diesel exhaust fluid refilled to avoid not being able to start the engine. You can have the fluid refilled by a BMW center.

##### Refilling diesel exhaust fluid in exceptional cases:

To be able to reach the next BMW center, you can refill diesel exhaust fluid yourself while adhering to the following warnings. Do not come in contact with diesel exhaust fluid. Wear goggles and gloves, if necessary. Follow the safety instructions on the bottle. Vapors with a sharp odor can escape from the bottle or container when it is opened. Before refilling, completely close the windows and doors of the vehicle to prevent the vapors from intruding into the interior. If handling diesel exhaust fluid in an enclosed area, ensure that the room is well ventilated. After handling diesel exhaust fluid, wash your hands thoroughly; otherwise, inadvertently touching your eyes, for example, may lead to eye irritations. If eye irritations occur, rinse the eyes thoroughly with water and consult a physician if necessary.”

I would like to add that this vehicle hasn't experienced an issue with soot since the engine was replaced per dealer service manager Chris Culp. BMW internal data from Dealer service tester (AKA FASTA) shows no faults returned that were set previously with old engine. The new engine installed in Ms. White's 335d is covered by a 2 year, unlimited mileage warranty. The engine is still covered as long as the owner continues to maintain the engine through the (CBS) Controlled Base Service information. I also want to add that the key reader is currently showing -70,000 miles. (-70,000 miles shows the CBS data has not been reset for oil change 70,000 miles since the last oil change was due. There are no special tools required to do this so any gas station or oil change service center can access this system to reset CBS service reminder.) Service history will need to be proved in order for any parts replacement warranty to be used if she has any further issues. See attachments to email to all the key read history showing oil service overdue.

Ms White prepaid for a maintenance plan “MP 72 MO/100K MLS”. This plan covers all oil changes. The last documented oil change through this system was performed 3/29/2011 with 63,906 miles. There was an opportunity to have 2 more oil services with this plan which the customer didn't have performed. The car has been driven 79,876 miles since the last documented oil change. Depending on driver style, it is possible for an engine to drive that many

miles without an oil service. However it is not recommended and is certainly not considered proper maintenance..

I reviewed the plaintiff's expert witness report. The 3 vehicles he shows as comparable have less than half to one third the amount of miles Ms White's vehicle. He also states the engine was replaced and that should also diminish the value of vehicle. It was the customer's request to install a new engine instead of waiting 10 days for another cylinder head. The complete engine didn't need to be replaced. As stated earlier, the new engine has a 2 year unlimited mileage warranty providing the car was maintained correctly. According to KBB (Kelly Blue Book) the actual value of her vehicle is \$14k in perfect condition to 10K in fair condition. I was not given a chance to perform an inspection on the current condition but based simply upon the number of miles on the car, its value is diminished.

Finally, there has been no diminution in value of the vehicle based upon any mechanical issues the vehicle has experienced. If anything, the value increased as the engine, turbo charger and all other related parts replaced during the repair received a 2 year unlimited miles warranty as long as the owner can prove proof the car was maintained. All those problems have been repaired under ER goodwill (ER goodwill= Repairs paid through Eastern region goodwill and not warranty) budget since repair was performed after warranty expired and also because customer didn't use correct fuel per owner's manual. The diminution in value is due to the normal wear and tear after driving the vehicle for approximately 143,700 miles. I have added description of Excellent, Good, Fair and Poor used by Kelly Blue Book to determine the value of a vehicle.

### **Excellent**

- Looks new, is in excellent mechanical condition and needs no reconditioning.
- Never had any paint or body work and is free of rust.
- Clean title history and will pass a smog and safety inspection.
- Engine compartment is clean, with no fluid leaks and is free of any wear or visible defects.
- Complete and verifiable service records.

Less than 5% of all used vehicles fall into this category.

### **Good**

- Free of any major defects.
- Clean title history, the paints, body, and interior have only minor (if any) blemishes, and there are no major mechanical problems.
- Little or no rust on this vehicle.
- Tires match and have substantial tread wear left.
- A "good" vehicle will need some reconditioning to be sold at retail.

Most consumer owned vehicles fall into this category.

### **Fair**

- Some mechanical or cosmetic defects and needs servicing but is still in reasonable running condition.
- Clean title history, the paint, body and/or interior need work performed by a professional.
- Tires may need to be replaced.
- There may be some repairable rust damage.

### **Poor**

- Severe mechanical and/or cosmetic defects and is in poor running condition.
- May have problems that cannot be readily fixed such as a damaged frame or a rusted-through body.
- Branded title (salvage, flood, etc.) or unsubstantiated mileage.

Kelley Blue Book does not attempt to report a value on a "poor" vehicle because the value of these vehicles varies greatly. A vehicle in poor condition may require an independent appraisal to determine its value.

I used two references to determine the vehicle value Kelly Blue Book and Edmunds both industry leaders. The values stated are only a reference values. I believe the purchased price for this 750li was approximately \$100,000 excluding taxes and license fees. Today Kelly Blue Book lists the Private Party Sale for this vehicle in fair condition at approximately \$47,700. Edmunds lists the retail value for this car in average condition at approximately \$53,600. Based on Kelly Blue Book and Edmunds the value of the 750li is in line with industry standards.

**Kelley Blue Book Suggested Retail Value is representative of dealers' asking prices for a used car and the starting point for negotiation between a consumer and a dealer.** This Suggested Retail Value assumes that the vehicle has been fully reconditioned and has a clean title history, but has not been certified in accordance with any Certified Pre-Owned (CPO) program the automaker may offer (for which it may or may not qualify, according to factors such as vehicle age and mileage). This value also takes into account the dealers' profit, costs for advertising, sales commissions and other costs of doing business. The final sale price will likely be less depending on the vehicle's actual condition, popularity, type of warranty offered and local market conditions.

Attached hereto is my curriculum vitae, which outlines my experience and credentials.....

BMW Master Technician certification 22 years  
BMW National Workshop Master Technician 10 years  
BMW National Technical Hotline Specialist 6 years  
BMW Technical Hotline Team Leader (drive train and chassis systems) 12 months  
BMW Technical Support Engineer 4 years  
BMW Technical Support Engineer TTL 1.5 years  
MINI Master Technician certification 12 years

Submitted by:  
Brian Sime  
Technical Support Engineer TTL  
Market 17 Eastern Region



SI B18 04 12  
Exhaust Systems

April 2012  
Technical Service

**PERFORM THE PROCEDURE OUTLINED IN THIS SERVICE INFORMATION ON ALL AFFECTED VEHICLES BEFORE CUSTOMER DELIVERY OR THE NEXT TIME THEY ARE IN THE SHOP FOR MAINTENANCE OR REPAIRS.**

**SUBJECT**

**Service Action: Replace the Selective Catalyst Reduction (SCR) Metering Unit**

**MODEL**

E90 with the M57Y engine

**SITUATION**

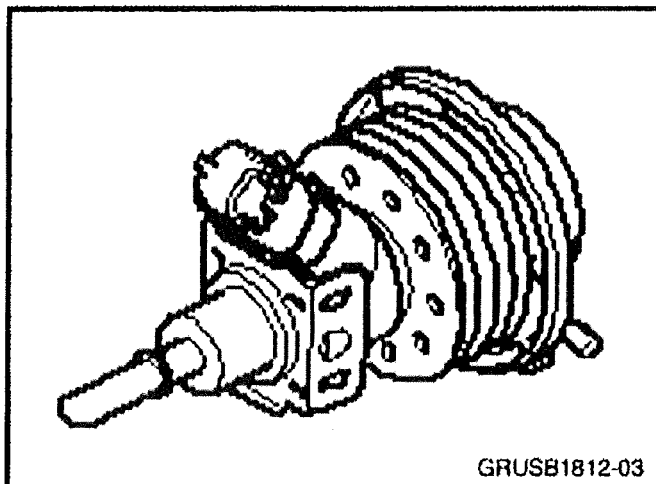
Metering units installed on certain E90 vehicles with the M57Y diesel engine will clog due to crystallization of the DEF fluid. An improved metering unit has been introduced.

**AFFECTED VEHICLES**

This Service Action involves E90 vehicles with the M57Y diesel engine which were produced from June 2009 to September 2010.

In order to determine whether a specific vehicle has had this Service Action completed or is affected by this Service Action, first check the B-pillar label for code number **616**. If code number **616** has been punched out, the campaign has already been performed. If code number **616** has not been punched out, it will be necessary to utilize the "Service Menu" of DCSnet (Dealer Communication System) or the Key Reader. Based on the response of the system, either proceed with the corrective action or take no further action.

**PROCEDURE**



Replace the metering unit as described in Repair Instruction RA 18 31 130.

Replace the metering unit as described in Repair Instruction RA 18 31 130.

**PARTS INFORMATION**

Part Number	Description	Quantity
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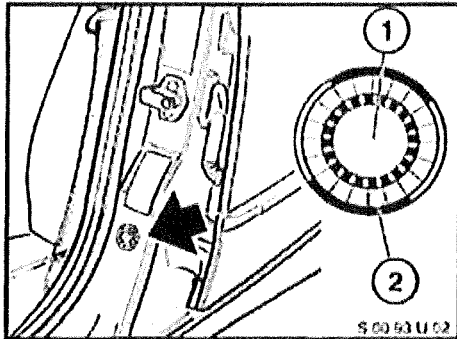


18 30 7 807 206

Metering unit

1

#### LABEL INSTRUCTIONS



This Service Action has been assigned code number **616**. After the vehicle has been checked and/or corrected, obtain a label (SD 92-403) and:

- A. Emboss your BMW center warranty number in the middle of the label (1);
- B. Punch out code number **616** (2), printed on the label; and
- C. Affix the label to the B-pillar as shown.

If the vehicle already has a label from a previous Service Action/Recall Campaign, affix the new label next to the old one. Do not affix one label on top of another one because a number from an underlying label could appear in the punched-out hole of the new label.

#### WARRANTY INFORMATION

The repair described in this bulletin is covered under warranty regardless of time or mileage. Reimbursement for this Service Action will be via normal claim entry utilizing the following information.

**Defect Code:** 00 18 41 01 00

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
00 60 838	4 FRU	Replace metering unit

Labor operation code 00 60 838 is a Plus labor operation.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowance. Enter the Chassis Number, which consists of the last 7 digits of the Vehicle Identification Number (VIN). Click on the "Search" button, and then enter the applicable flat rate labor operation in the FR code field.

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**FBM-Viewer**

List of Keydata

**Vehicle data**

VIN-7	A265980
Type	PN83
Model	335D
E-Series	E90
I-Plant	E89X-08-09-530
Engine	M57Y
Prod.	06/02/2009

Read Date	Update Date	Dealer No.	Dealer Name, City	Country	km State	Service Type	Key Derivate
01/02/2010 02:50:31 PM	29/01/2010 10:43:00 PM	56592 / 06592 - 1	Casey BMW , Newport News	USA	46,452	CBS	8

**Systeminfo**

AG-Dealer Number	56592
GUID	10A265980999999920100201084917
LANG_ID	
Date/Time at Insert	01/02/2010 02:49:18 PM
Date/Time at Update	29/01/2010 10:43:00 PM
GENKI_VERSION	-
KSD_VERSION	01/2010

**Key Data Information**

Key Derivate (Main)	8
Key Derivate (Sub)	6
Service Type	CBS
Origin	K
Update in Vehicle	29/01/2010 10:43:00 PM
Read Date	01/02/2010 02:50:31 PM
Key Memory Number	1
Key-HW No.	1
Code of Writing Mode	1

**FBM-Viewer**  
 List of Keydata

**Vehicle Info**

VIN-10	WBAPN73569
VIN-7	A265980
E-Series	E90
Main Type	PN83
Type	PN83
Brand	BMW
Product Type	1
Production month	02/2009
Initial Registration	29/05/2009
No. Gears	6
Drive	2
Engine Displacement	3
Actuation	6
Car Body	1
Steering	1
Cylinder	6
Paint Code	066
Bolster Code	LCD3

**Vehicle Condition**

Battery Voltage	14.13
Cooling Temperature	86
Air Temperature	2
Tank	29

**CBS Info**

CBS Variant	3
Number of CBS Coverage	5
Kilometer average (km / week) last 8 weeks	1,370
Kilometer average (km / week) last year	730

**CBS Info Service**

ASU	
HU	01/05/2013
Break Liquid	01/02/2011
Technical Check	-4,400
Distance (Total)	14,000
Next Service Date	26/01/2011

**CBS Info Vehicle**

TeleService Status	0
Service Distance / Distance Vehicle (Yellow)	4
Service Code HU / AU Vehicle	1
Distance Unit	0
Service Distance Vehicle (Yellow)	
Service Time Vehicle (Yellow)	

# FBM-Viewer

List of Keydata

## CBS Coverage

CBS-ID	Name	Status Veh.	Service Counter	Availability	next Service Time	next Service Distance	Due Date (max)	linked CBS Coverage Code	Action-Status	Action-Name	Action-Content
99999	Standard scope	green	0								
00017	Vehicle check	red	1	0	1,082	4,400	2013-02				
00001	Engine oil	green	3	70	302	14,000	2010-12	Fuel filter, Air filter element			
00006	Rear Brake	green	1	37		18,000					
00003	Brake fluid	green	1	51	362		2011-02	Microfilter (consider further additional job(s) if appropriate)			
00002	Front Brake	green	1	62		30,000					
00032	Statutory vehicle inspection	green			1,172		2013-05				
00008	Fuel filter	green	0		302	14,000					
00034	Air filter element	green	0		302	14,000					
00119	Microfilter (consider further additional job(s) if appropriate)	green	0		362						

## CBS Coverage

CBS-ID	Name	Status Veh. Interval	Calculation	Due Date Remaining Time	Due Date Remaining Distance	Forecast Time	Forecast Distance	TeleService Ability
99999	Standard scope	0						
00017	Vehicle check	3,220	N	J	48	42	3	
00001	Engine oil	3,220	N	J	12	25	1	
00006	Rear Brake	6,440		J		48	1	
00003	Brake fluid	112	J	J	24		1	
00002	Front Brake	6,440		J		137	1	
00032	Statutory vehicle inspection	0	J	J			0	
00008	Fuel filter	0	N	J				
00034	Air filter element	0	N	J				
00119	Microfilter (consider further additional job(s) if appropriate)	0	J	J				

## CBS Coverage (Order)

CBS-ID	Name	Status SAM	preselected	selected / deselected	unchangeable	In Service Package	Identifier BSI Due Date	In Service Package billable	Recommendation AW No.	AW Amount	associated Work	Order ID
99999	Standard scope	J			N	N	N	N	0000105	2	N	N
00017	Vehicle check	due	J		N	N	N	N	0000524	6	J	J
00001	Engine oil	N			N	N	N	N	0000610	10	N	N
00006	Rear Brake	N			N	N	N	N	0000614	11	N	N
00003	Brake fluid	N			N	N	N	N	0000618	4	N	N
00002	Front Brake	N			N	N	N	N	0000612	7	N	N
00032	Statutory vehicle inspection	N			N	N	N	N	0012559	0	N	N
00008	Fuel filter	combined with Engine oil	N		N	N	N	N	0000604	4	N	N

**FBM-Viewer**  
 List of Keydata

CBS-ID	Name	Status SAM preselected	selected / deselected	unchangeable	In Service Package	Identifier BSI Due Date	In Service Package billable	Recommendation	AW No.	AW Amount	associated Work	Order ID
00034	Air filter element	combined with Engine oil	N	N	N	N	N	N	0000602	2	N	
00119	Microfilter (consider further additional job(s) if appropriate)	combined with Brake fluid	N	N	N	N	N	N	0000616	1	N	

**FBM-Viewer**  
 List of Keydata

**Vehicle Defects**

Number of Error Memory Entries	2
Maximum of Error Memory Entries	
Number of responding ECU	2
Number of ECU with Error Entries	

**Extended Attributes**

Name	Value	Text
typeCountry	2.0	US
topUpInformationEngineOil.cbsIdentifier	99901	
iLevel.iLevelHO	E89X-09-09-516	
dataConsistence3	255	
topUpInformationEngineOil.code	0	
dataConsistence1	255	
topUpInformationEngineOil.description	Engine oil level OK	
iLevel.iLevelBackup	E89X-09-09-516	
dataConsistence2	255	
iLevel.iLevelPlant	E89X-08-09-530	
iLevel.newLevelAvailable	false	
dataConsistence4	254	

**Vehicle Defects Detail 1**

DTC	ECU Address	PuMA Action
ABEC	0, null	
A8B6	0, null	

# FBM-Viewer

List of Keydata



## Vehicle data

VIN-7	A265980
Type	PN83
Model	335D
E-Series	E90
I-Plant	E89X-08-09-530
Engine	M57Y
Prod.	06/02/2009

Read Date	Update Date	Dealer No.	Dealer Name, City	Country	km	State	Service Type	Key Derivate
25/01/2011 08:57:13 PM	25/01/2011 08:42:00 PM	56592 / 06592 - 1	Casey BMW , Newport News	USA	89,687	CBS		8

## Systeminfo

AG-Dealer Number	56592
GUID	05A265980999999920110125145332
LANG_ID	
Date/Time at Insert	25/01/2011 08:53:33 PM
Date/Time at Update	25/01/2011 08:42:00 PM
GENKI_VERSION	04.05
KSD_VERSION	12/2010

## Key Data Information

Key Derivate (Main)	8
Key Derivate (Sub)	6
Service Type	CBS
Origin	K
Update in Vehicle	25/01/2011 08:42:00 PM
Read Date	25/01/2011 08:57:13 PM
Key Memory Number	0
Key-HW No.	0
Code of Writing Mode	1

**FBM-Viewer**  
 List of Keydata

**Vehicle Info**

VIN-10	WBAPN73569
VIN-7	A265980
E-Series	E90
Main Type	PN83
Type	PN83
Brand	BMW
Product Type	1
Production month	02/2009
Initial Registration	30/05/2009
No. Gears	6
Drive	2
Engine Displacement	3
Actuation	6
Car Body	1
Steering	1
Cylinder	6
Paint Code	066
Bolster Code	LCD3

**Vehicle Condition**

Battery Voltage	14.01
Cooling Temperature	85
Air Temperature	10.5
Tank	4

**CBS Info**

CBS Variant	4
Number of CBS Coverage	5
Kilometer average (km / week) last 8 weeks	840
Kilometer average (km / week) last year	930

**CBS Info Service**

ASU	
HU	01/06/2011
Break Liquid	01/02/2011
Technical Check	-1,200
Distance (Total)	26,000
Ne Service Date	31/05/2011

**CBS Info Vehicle**

TeleService Status	0
Service Distance / Distance Vehicle (Yellow)	4
Service Code HU / AU Vehicle	1
Distance Unit	0
Service Distance Vehicle (Yellow)	
Service Time Vehicle (Yellow)	



# FBM-Viewer

List of Keydata

## CBS Coverage

CBS-ID	Name	Status Veh.	Service Counter	Availability	next Service Time	next Service Distance	Due Date (max)	linked CBS Coverage Code	Action-Status	Action-Name	Action-Content
99999	Standard scope	green	0								
00017	Vehicle check	red	2	0	1,086	1,200	2014-02				
00003	Brake fluid	yellow	1	2	6		2011-02				
00001	Engine oil	yellow	5	21	126	2,200	2011-06				
00006	Rear Brake	green	2	72		37,000					
00002	Front Brake	green	1	33		48,000					
00032	Statutory vehicle inspection	green			126						
00119	Microfilter (consider further additional job(s) if appropriate)	yellow	0		6		2011-06				

## CBS Coverage

CBS-ID	Name	Status Veh.	Calculation Interval	Due Date Remaining Time	Due Date Remaining Distance	Forecast Time	Forecast Distance	TeleService Ability
99999	Standard scope	0						
00017	Vehicle check	3,220		J	48	42		3
00003	Brake fluid	112		J	24			3
00001	Engine oil	3,220		J	12	26		3
00006	Rear Brake	6,440		J		51		1
00002	Front Brake	6,440		J		144		1
00032	Statutory vehicle inspection	0		J				0
00119	Microfilter (consider further additional job(s) if appropriate)	0		J				

## CBS Coverage (Order)

CBS-ID	Name	Status SAM	preselected	selected / deselected	unchangeable	In Service Package	Identifier BSI Due Date	In Service Package billable	Recommendation	AW No.	AW Amount	associated Work	Order ID
99999	Standard scope	J			N	N	N	N	N	0000105	2	N	
00017	Vehicle check	due			N	N	N	N	N	0000634	6	J	
00003	Brake fluid	due			N	N	N	N	N	0000618	4	J	
00001	Engine oil	due			N	N	N	N	N	0000610	6	J	
00006	Rear Brake				N	N	N	N	N	0000614	11	N	
00002	Front Brake				N	N	N	N	N	0000612	7	N	
00032	Statutory vehicle inspection				N	N	N	N	N	0012159	0	N	
00119	Microfilter (consider further additional job(s) if appropriate)	combined with Brake fluid			N	N	N	N	N	0000616	1	J	

# FBM-Viewer

List of Keydata

## CheckControl Messages

Code	CC Description	km Reading
00164	Washer fluid level low!	
00275	Fuel reserve!	

## Vehicle Defects

Number of Error Memory Entries	5
Maximum of Error Memory Entries	
Number of responding ECU	
Number of ECU with Error Entries	3

## Extended Attributes

Name	Value	Text
typeCountry	2.0	US
topUpInformationEngineOil.cbsIdentifier	99901	
iLevel.iLevelBackup	E89X-09-12-512	
iLevel.iLevelHO	E89X-10-03-504	
dataConsistence3	255	
topUpInformationEngineOil.code	0	
dataConsistence1	255	
topUpInformationEngineOil.description	Engine oil level OK	
dataConsistence2	255	
iLevel.iLevelPlant	E89X-08-09-530	
iLevel.newLevelAvailable	true	
dataConsistence4	254	

## Vehicle Defects Detail 1

DTC	ECU Address	PuMA Action
3FF1	0, null	
A0B4	0, null	
2E3C	0, null	
A10A	0, null	
A8B3	0, null	

## Vehicle Info - built in ECUs

ECU Address	Diagnostics Index	Variant Index
64	1696	21313
0	3536	20050
120	1488	18261
86	1440	18499
23	4112	22084
32	4096	17735
109	3152	21326
114	3680	21068
1	2276	18266
98	3984	21577
24	516	21324

**FBM-Viewer**  
List of Keydata

ECU Address	Diagnostics Index	Variant Index
99	4000	21576
18	48	22340
96	2256	21073
54	1586	21826
41	1457	19521

**FBM-Viewer**  
 List of Keydata

**Vehicle data**

VIN-7	A265980
Type	PN83
Model	335D
E-Series	E90
I-Plant	E89X-08-09-530
Engine	M57Y
Prod.	06/02/2009

Read Date	Update Date	Dealer No.	Dealer Name, City	Country	km State	Service Type	Key Derivate
07/02/2012 02:17:06 PM	07/02/2012 02:09:00 PM	56592 / 06592 - 1	Casey BMW , Newport News	USA	177,906	CBS	8

**Systeminfo**

AG-Dealer Number	56592
GUID	08A265980999999920120207081604
LANG_ID	
Date/Time at Insert	07/02/2012 02:16:06 PM
Date/Time at Update	07/02/2012 02:09:00 PM
GENKI_VERSION	04.09
KSD_VERSION	12/2011

**Key Data Information**

Key Derivate (Main)	8
Key Derivate (Sub)	6
Service Type	CBS
Origin	K
Update in Vehicle	07/02/2012 02:09:00 PM
Read Date	07/02/2012 02:17:06 PM
Key Memory Number	1
Key-HW No.	1
Code of Writing Mode	1

**FBM-Viewer**  
 List of Keydata

**Vehicle Info**

VIN-10	WBAPN73569
VIN-7	A265980
E-Series	E90
Main Type	PN83
Type	PN83
Brand	BMW
Product Type	1
Production month	02/2009
Initial Registration	30/05/2009
No. Gears	6
Drive	2
Engine Displacement	3
Actuation	6
Car Body	1
Steering	1
Cylinder	6
Paint Code	066
Bolster Code	LCD3

**Vehicle Condition**

Battery Voltage	13.94
Cooling Temperature	84
Air Temperature	5.5
Tank	60

**CBS Info**

CBS Variant	4
Number of CBS Coverage	5
Kilometer average (km / week) last 8 weeks	1,920
Kilometer average (km / week) last year	1,630

**CBS Info Service**

ASU	
HU	01/08/2011
Break Liquid	01/01/2013
Technical Check	-46,000
Distance (Total)	25,000
Net Service Date	27/12/2012

**CBS Info Vehicle**

TeleService Status	0
Service Distance / Distance Vehicle (Yellow)	4
Service Code HU / AU Vehicle	1
Distance Unit	0
Service Distance Vehicle (Yellow)	
Service Time Vehicle (Yellow)	

# FBM-Viewer

List of Keydata

## CBS Coverage

CBS-ID	Name	Status	Veh. Interval	Service Counter	Availability	next Service Time	next Service Distance	Due Date (max)	linked CBS Coverage Code	Action-Status	Action-Name	Action-Content
99999	Standard scope	green		0								
00017	Vehicle check	red	3,220	3	0	1,044	-46,000	2015-01				
00002	Front Brake	red	6,440	1	0		-34,000					
00006	Rear Brake	red	6,440	2	0		-25,000					
00001	Engine oil	red	3,220	9	0	204	-14,000	2012-09			Fuel filter, Air filter element	
00003	Brake fluid	green		2	48	324		2013-01			Microfilter (consider further additional job(s) if appropriate)	
00032	Statutory vehicle inspection	red				-186		2011-08				
00008	Fuel filter	red		0		204	-14,000					
00034	Air filter element	red		0		204	-14,000					
00119	Microfilter (consider further additional job(s) if appropriate)	green		0		324						

## CBS Coverage

CBS-ID	Name	Status	Veh. Interval	Calculation	Due Date Remaining Time	Due Date Remaining Distance	Forecast Time	Forecast Distance	TeleService Ability
99999	Standard scope		0						
00017	Vehicle check		3,220	N	J	48	42	3	
00002	Front Brake		6,440		J		126	3	
00006	Rear Brake		6,440		J		58	3	
00001	Engine oil		3,220	N	J	12	25	3	
00003	Brake fluid		112	J	J	24	1	1	
00032	Statutory vehicle inspection		0	J	J			0	
00008	Fuel filter		0	N	J				
00034	Air filter element		0	N	J				
00119	Microfilter (consider further additional job(s) if appropriate)		0	J	J				

## CBS Coverage (Order)

CBS-ID	Name	Status	SAM preselected	selected / deselected	unchangeable	in Service Package	Identifier BSI Due Date	in Service Package billable	Recommendation	AW No.	AW Amount	associated Work	Order ID
99999	Standard scope												
00017	Vehicle check	J	due		N	N	N	N	N	0000105	2	N	N
00002	Front Brake	J	due		N	N	N	N	N	0000524	6	J	J
00006	Rear Brake	J	due		N	N	N	N	N	0000612	7	J	J
00001	Engine oil	J	due		N	N	N	N	N	0000614	11	J	J
00003	Brake fluid	J	due		N	N	N	N	N	0000610	6	J	J
00032	Statutory vehicle inspection	N	due		N	N	N	N	N	0000618	4	N	N
00008	Fuel filter	J	combined with Engine oil		N	N	N	N	N	0012559	0	J	J
00034	Air filter element	J			N	N	N	N	N	0000604	4	J	J

**FBM-Viewer**  
 List of Keydata

CBS-ID	Name	Status SAM preselected	selected / deselected	unchangeable	In Service Package	Identifier BSI Due Date	In Service Package billable	Recommendation	AW No.	AW Amount	associated Work	Order ID
00034	Air filter element	combined J with Engine oil		N	N	N	N	N	0000602	2	J	
00119	Microfilter (consider further additional job(s) if appropriate)	combined N with Brake fluid		N	N	N	N	N	0000616	1	N	

**FBM-Viewer**  
 List of Keydata

**CheckControl Messages**

Code	CC Description	km Reading
00071	Brake pads! Replace	
00136	Brake light left failure!	

**Vehicle Defects**

Number of Error Memory Entries	7
Maximum of Error Memory Entries	
Number of responding ECU	
Number of ECU with Error Entries	5

**Extended Attributes**

Name	Value	Text
typeCountry	2.0	US
iLevel.iLevelBackup	E89X-10-03-504	
topUpInformationEngineOil.cbsIdentifier	99901	
iLevel.iLevelHO	E89X-10-12-503	
dataConsistence3	255	
topUpInformationEngineOil.code	0	
dataConsistence1	255	
topUpInformationEngineOil.description	Engine oil level OK	
dataConsistence2	255	
iLevel.iLevelPlant	E89X-08-09-530	
iLevel.newLevelAvailable	true	
dataConsistence4	254	

**Vehicle Defects Detail 1**

DTC	ECU Address	PuMA	Action
2E3C		0, null	
A6CF		0, null	
A8B6		0, null	
9CB3		0, null	
5DE2		0, null	
5DE3		0, null	
ABEC		0, null	

**Vehicle Info - built in ECUs**

ECU Address	Diagnostics Index	Variant Index
64	1696	21313
0	3536	20050
120	1488	18261
86	1440	18499
23	4112	22084
32	4096	17735
109	3152	21326
114	3680	21068
1	2276	18266



**FBM-Viewer**  
List of Keydata

ECU Address	Diagnostics Index	Variant Index
98	3984	21577
24	516	21324
99	4000	21576
18	48	22340
96	2256	21073
54	1586	21826
41	1457	19521

# FBM-Viewer

List of Keydata



## Vehicle data

VIN-7	A265980
Type	PN83
Model	335D
E-Series	E90
I-Plant	E89X-08-09-530
Engine	M57Y
Prod.	06/02/2009

Read Date	Update Date	Dealer No.	Dealer Name, City	Country	km State	Service Type	Key Derivate
09/04/2012 08:30:52 PM	09/04/2012 08:16:00 PM	56592 / 06592 - 1	Casey BMW , Newport News	USA	196,264	CBS	8

## Systeminfo

AG-Dealer Number	56592
GUID	14A265980999999920120409143157
LANG_ID	
Date/Time at Insert	09/04/2012 08:31:58 PM
Date/Time at Update	09/04/2012 08:16:00 PM
GENKI_VERSION	04.09
KSD_VERSION	03/2012

## Key Data Information

Key Derivate (Main)	8
Key Derivate (Sub)	6
Service Type	CBS
Origin	K
Update in Vehicle	09/04/2012 08:16:00 PM
Read Date	09/04/2012 08:30:52 PM
Key Memory Number	1
Key-HW No.	1
Code of Writing Mode	1

**FBM-Viewer**  
 List of Keydata

Vehicle Info		CBS Info	
VIN-10	WBAPN73569	CBS Variant	4
VIN-7	A265980	Number of CBS Coverage	5
E-Series	E90	Kilometer average (km / week) last 8 weeks	2,070
Main Type	PN83	Kilometer average (km / week) last year	1,630
Type	PN83		
Brand	BMW		
Product Type	1	<b>CBS Info Service</b>	
Production month	02/2009	ASU	01/08/2011
Initial Registration	30/05/2009	HU	01/01/2013
No. Gears	6	Break Liquid	-60,000
Drive	2	Technical Check	25,000
Engine Displacement	3	Distance (Total)	
Actuation	6	Net Service Date	27/12/2012
Car Body	1		
Steering	1	<b>CBS Info Vehicle</b>	
Cylinder	6	TeleService Status	0
Paint Code	066	Service Distance / Distance Vehicle (Yellow)	4
Bolster Code	LCD3	Service Code HU / AU Vehicle	1
		Distance Unit	0
		Service Distance Vehicle (Yellow)	
		Service Time Vehicle (Yellow)	
Vehicle Condition			
Battery Voltage	13.95		
Cooling Temperature	85		
Air Temperature	24		
Tank	26		

# FBM-Viewer

List of Keydata

## CBS Coverage

CBS-ID	Name	Status	Veh.	Service Counter	Availability	next Service Time	next Service Distance	Due Date (max)	linked CBS Coverage Code	Action-Status	Action-Name	Action-Content
99999	Standard scope	green		0	0	982	-60,000	2015-01				
00017	Vehicle check	red		3	0		-50,000					
00002	Front Brake	red		1	0		-50,000					
00006	Rear Brake	red		2	0		-50,000					
00001	Engine oil	red		9	0	142	-32,000	2012-09	Fuel filter, Air filter element			
00003	Brake fluid	green		2	39	262		2013-01	Microfilter (consider further additional job(s) if appropriate)			
00032	Statutory vehicle inspection	red				-248		2011-08				
00008	Fuel filter	red		0		142	-32,000					
00034	Air filter element	red		0		142	-32,000					
00119	Microfilter (consider further additional job(s) if appropriate)	green		0		262						

## CBS Coverage

CBS-ID	Name	Status	Veh.	Calculation Interval	Due Date Remaining Time	Due Date Remaining Distance	Forecast Time	Forecast Distance	TeleService Ability
99999	Standard scope			0	N	J	48	42	3
00017	Vehicle check			3,220	J	J		150	3
00002	Front Brake			6,440	J	J		150	3
00006	Rear Brake			9,660	J	J		25	3
00001	Engine oil			3,220	N	J	12		1
00003	Brake fluid			112	J	J	24		0
00032	Statutory vehicle inspection			0	J	J			
00008	Fuel filter			0	N	J			
00034	Air filter element			0	N	J			
00119	Microfilter (consider further additional job(s) if appropriate)			0	J	J			

## CBS Coverage (Order)

CBS-ID	Name	Status	SAM	preselected	selected / deselected	unchangeable	in Service Package	Identifier BSI Due Date	in Service Package billable	Recommendation	AW No.	AW Amount	associated Work	Order ID
99999	Standard scope	J				N	N	N	N	N	0000105	2	N	N
00017	Vehicle check	J	due			N	N	N	N	N	0000624	6	J	J
00002	Front Brake	J	due			N	N	N	N	N	0000612	7	J	J
00006	Rear Brake	J	due			N	N	N	N	N	0000614	11	J	J
00001	Engine oil	J	due			N	N	N	N	N	0000610	6	J	J
00003	Brake fluid	N	due			N	N	N	N	N	0000618	4	N	N
00032	Statutory vehicle inspection	J	due			N	N	N	N	N	0012559	0	J	J
00008	Fuel filter	J	combined with Engine oil			N	N	N	N	N	0000604	4	J	J

**FBM-Viewer**  
 List of Keydata

CBS-ID	Name	Status SAM preselected	selected / deselected	unchangeable	In Service Package	Identifier BSI Due Date	In Service Package billable	Recommendation	AW No.	AW Amount	associated Work	Order ID
00034	Air filter element	combined J with Engine oil		N	N	N	N	N	0000602	2	J	
00119	Microfilter (consider further additional job(s) if appropriate)	combined N with Brake fluid		N	N	N	N	N	0000616	1	N	

# FBM-Viewer

List of Keydata

## CheckControl Messages

Code	CC Description	km Reading
00071	Brake pads! Replace	
00136	Brake light left failure!	
00164	Washer fluid level low!	

## Vehicle Defects

Number of Error Memory Entries	9
Maximum of Error Memory Entries	
Number of responding ECU	
Number of ECU with Error Entries	4

## Extended Attributes

Name	Value	Text
typeCountry	2.0	US
iLevel.iLevelBackup	E89X-10-03-504	
topUpInformationEngineOil.cbsIdentifier	99901	
iLevel.iLevelHO	E89X-10-12-503	
dataConsistence3	255	
topUpInformationEngineOil.code	0	
dataConsistence1	255	
topUpInformationEngineOil.description	Engine oil level OK	
dataConsistence2	255	
iLevel.iLevelPlant	E89X-08-09-530	
iLevel.newLevelAvailable	true	
dataConsistence4	254	

## Vehicle Defects Detail 1

DTC	ECU Address	PuMA Action
5DE3	0, null	
4BAC	0, null	
9CB3	0, null	
5DE2	0, null	
A8A8	0, null	
ABEC	0, null	
4B10	0, null	
A8B6	0, null	
4B82	0, null	

## Vehicle Info - built in ECUs

ECU Address	Diagnostics Index	Variant Index
64	1696	21313
0	3536	20050
120	1488	18261
86	1440	18499
23	4112	22084
32	4096	17735
109	3152	21326

**FBM-Viewer**  
List of Keydata

ECU Address	Diagnostics Index	Variant Index
114	3680	21068
1	2276	18266
98	3984	21577
24	516	21324
99	4000	21576
18	48	22340
96	2256	21073
54	1586	21826
41	1457	19521

**FBM-Viewer**  
 List of Keydata

**Vehicle data**

VIN-7	A265980
Type	PN83
Model	335D
E-Series	E90
I-Plant	E89X-08-09-530
Engine	M57Y
Prod.	06/02/2009

Read Date	Update Date	Dealer No.	Dealer Name, City	Country	km State	Service Type	Key Derivate
03/08/2012 07:34:10 PM	03/08/2012 07:20:00 PM	56592 / 06592 - 1	Casey BMW , Newport News	USA	231,388	CBS	8

**Systeminfo**

AG-Dealer Number	56592
GUID	07A265980999999920120803133414
LANG_ID	
Date/Time at Insert	03/08/2012 07:34:15 PM
Date/Time at Update	03/08/2012 07:20:00 PM
GENKI_VERSION	04.09
KSD_VERSION	07/2012

**Key Data Information**

Key Derivate (Main)	8
Key Derivate (Sub)	6
Service Type	CBS
Origin	K
Update in Vehicle	03/08/2012 07:20:00 PM
Read Date	03/08/2012 07:34:10 PM
Key Memory Number	1
Key-HW No.	1
Code of Writing Mode	1



**FBM-Viewer**  
 List of Keydata

**Vehicle Info**

VIN-10	WBAPN73569
VIN-7	A265980
E-Series	E90
Main Type	PN83
Type	PN83
Brand	BMW
Product Type	1
Production month	02/2009
Initial Registration	30/05/2009
No. Gears	6
Drive	2
Engine Displacement	3
Actuation	6
Car Body	1
Steering	1
Cylinder	6
Paint Code	066
Bolster Code	LCD3

**Vehicle Condition**

Battery Voltage	13.85
Cooling Temperature	91
Air Temperature	35
Tank	18

**CBS Info**

CBS Variant	4
Number of CBS Coverage	5
Kilometer average (km / week) last 8 weeks	2,150
Kilometer average (km / week) last year	1,820

**CBS Info Service**

ASU	
HU	01/08/2011
Break Liquid	01/01/2013
Technical Check	-100,000
Distance (Total)	24,000
Ne <input type="checkbox"/> Service Date	29/12/2012

**CBS Info Vehicle**

TeleService Status	0
Service Distance / Distance Vehicle (Yellow)	4
Service Code HU / AU Vehicle	1
Distance Unit	0
Service Distance Vehicle (Yellow)	
Service Time Vehicle (Yellow)	

# FBM-Viewer

List of Keydata

## CBS Coverage

CBS-ID	Name	Status	Veh. Counter	Availability	next Service Time	next Service Distance	Due Date (max)	linked CBS Coverage Code	Action-Status	Action-Name	Action-Content
99999	Standard scope	green	0								
00017	Vehicle check	red	3	0	868	-100,000	2015-01				
00001	Engine oil	red	9	0	28	-70,000	2012-09			Fuel filter, Air filter element	
00002	Front Brake	red	1	0		-50,000					
00006	Rear Brake	red	2	0		-50,000					
00003	Brake fluid	green	2	23	148		2013-01			Microfilter (consider further additional job(s) if appropriate)	
00032	Statutory vehicle inspection	red	0		-362	-70,000	2011-08				
00008	Fuel filter	red	0		28	-70,000					
00034	Air filter element	red	0		28	-70,000					
00119	Microfilter (consider further additional job(s) if appropriate)	green	0		148						

## CBS Coverage

CBS-ID	Name	Status	Veh. Interval	Calculation	Due Date Remaining Time	Due Date Remaining Distance	Forecast Time	Forecast Distance	TeleService Ability
99999	Standard scope	0							
00017	Vehicle check	3,220					48	42	3
00001	Engine oil	3,220					12	24	3
00002	Front Brake	6,440						150	3
00006	Rear Brake	6,440						150	3
00003	Brake fluid	112					24		1
00032	Statutory vehicle inspection	0							0
00008	Fuel filter	0							
00034	Air filter element	0							
00119	Microfilter (consider further additional job(s) if appropriate)	0							

## CBS Coverage (Order)

CBS-ID	Name	Status	SAM preselected	selected / deselected	unchangeable	in Service Package	Identifier BSI Due Date	in Service Package billable	Recommendation AW No.	AW Amount	associated Order ID
99999	Standard scope	J			N	N	N	N	0000105	2	N
00017	Vehicle check	due			N	N	N	N	0000624	6	J
00001	Engine oil	due			N	N	N	N	0000610	6	J
00002	Front Brake	due			N	N	N	N	0000612	7	J
00006	Rear Brake	due			N	N	N	N	0000614	11	J
00003	Brake fluid	due			N	N	N	N	0000618	4	N
00032	Statutory vehicle inspection	due			N	N	N	N	0012559	0	J
00008	Fuel filter	combined with Engine oil			N	N	N	N	0000604	4	J

**FBM-Viewer**  
 List of Keydata

CBS-ID	Name	Status	SAM preselected	selected / deselected	unchangeable	In Service Package	Identifier BSI Due Date	In Service Package billable	Recommendation	AW No.	AW Amount	associated Work	Order ID
00034	Air filter element	combined with Engine oil	J		N	N	N	N	N	0000602	2	J	
00119	Microfilter (consider further additional job(s) if appropriate)	combined with Brake fluid	N		N	N	N	N	N	0000616	1	N	

# FBM-Viewer

List of Keydata

## CheckControl Messages

Code	CC Description	km Reading
00071	Brake pads! Replace	
00136	Brake light left failure!	

## Vehicle Defects

Number of Error Memory Entries	14
Maximum of Error Memory Entries	
Number of responding ECU	
Number of ECU with Error Entries	3

## Extended Attributes

Name	Value	Text
typeCountry	2.0	US
iLevel.iLevelBackup	E89X-10-03-504	
topUpInformationEngineOil.cbsIdentifier	99901	
iLevel.iLevelHO	E89X-10-12-503	
dataConsistence3	255	
topUpInformationEngineOil.code	0	
dataConsistence1	255	
topUpInformationEngineOil.description	Engine oil level OK	
dataConsistence2	255	
iLevel.iLevelPlant	E89X-08-09-530	
iLevel.newLevelAvailable	true	
dataConsistence4	254	

## Vehicle Defects Detail 1

DTC	ECU Address	PuMA Action
A8C6	0, null	
9CB3	0, null	
2E3C	0, null	
ABEC	0, null	
4B10	0, null	
4B11	0, null	
A8C5	0, null	
A8B6	0, null	
46A4	0, null	
4D35	0, null	
A8A8	0, null	
4B82	0, null	
4BAC	0, null	
4D03	0, null	

## Vehicle Info - built in ECUs

ECU Address	Diagnostics Index	Variant Index
64	1696	21313
0	3536	20050

**FBM-Viewer**  
List of Keydata

ECU Address	Diagnostics Index	Variant Index
120	1488	18261
86	1440	18499
23	4112	22084
32	4096	17735
109	3152	21326
114	3680	21068
1	2276	18266
98	3984	21577
24	516	21324
99	4000	21576
18	48	22340
96	2256	21073
54	1586	21826
41	1457	19521

# FBM-Viewer

List of Keydata



## Vehicle data

VIN-7	A265980
Type	PN83
Model	335D
E-Series	E90
I-Plant	E89X-08-09-530
Engine	M57Y
Prod.	06/02/2009

Read Date	Update Date	Dealer No.	Dealer Name, City	Country	km State	Service Type	Key Derivate
28/12/2009 03:03:56 PM	28/12/2009 02:53:00 PM	56592 / 06592 - 1	Casey BMW , Newport News	USA	38,741	CBS	8

## Systeminfo

AG-Dealer Number	56592
GUID	13A265980999999920091228090302
LANG_ID	
Date/Time at Insert	28/12/2009 03:03:02 PM
Date/Time at Update	28/12/2009 02:53:00 PM
GENKI_VERSION	-
KSD_VERSION	12/2009

## Key Data Information

Key Derivate (Main)	8
Key Derivate (Sub)	6
Service Type	CBS
Origin	K
Update in Vehicle	28/12/2009 02:53:00 PM
Read Date	28/12/2009 03:03:56 PM
Key Memory Number	1
Key-HW No.	1
Code of Writing Mode	1

**FBM-Viewer**  
 List of Keydata

Vehicle Info		CBS Info	
VIN-10	WBAPN73569	CBS Variant	3
VIN-7	A265980	Number of CBS Coverage	5
E-Series	E90	Kilometer average (km / week) last 8 weeks	730
Main Type	PN83	Kilometer average (km / week) last year	740
Type	PN83		
Brand	BMW		
Product Type	1	CBS Info Service	
Production month	02/2009	ASU	01/05/2013
Initial Registration	29/05/2009	HU	01/02/2011
No. Gears	6	Break Liquid	3,300
Drive	2	Technical Check	3,300
Engine Displacement	3	Distance (Total)	
Actuation	6	Ne <input type="checkbox"/> Service Date	25/01/2011
Car Body	1		
Steering	1	CBS Info Vehicle	
Cylinder	6	TeleService Status	0
Paint Code	066	Service Distance / Distance Vehicle (Yellow)	4
Bolster Code	LCD3	Service Code HU / AU Vehicle	1
		Distance Unit	0
		Service Distance Vehicle (Yellow)	
		Service Time Vehicle (Yellow)	
Vehicle Condition			
Battery Voltage	14.49		
Cooling Temperature	86		
Air Temperature	5.5		
Tank	59		

CBS-ID	Name	Status	Veh.	Service Counter	Availability	next Service Time	next Service Distance	Due Date (max)	linked CBS Coverage Code	Action-Status	Action-Name	Action-Content
99999	Standard scope	green		0								
00001	Engine oil	red		2	0	243	3,200	2010-09				
00017	Vehicle check	green		1	7	1,113	3,300	2013-02				
00006	Rear Brake	green		1	37		18,000					
00003	Brake fluid	green		1	55	393		2011-02			Microfilter (consider further additional job(s) if appropriate)	
00002	Front Brake	green		1	68		90,000					
00032	Statutory vehicle inspection	green				1,203		2013-05				
00119	Microfilter (consider further additional job(s) if appropriate)	green		0		393						

CBS-ID	Name	Status	Veh. Calculation Interval	Due Date Remaining Time	Due Date Remaining Distance	Forecast Time	Forecast Distance	TeleService Ability
99999	Standard scope	0						
00001	Engine oil	3,220		N	J	12	25	3
00017	Vehicle check	3,220		N	J	48	42	1
00006	Rear Brake	6,440			J		47	1
00003	Brake fluid	112		J		24		1
00002	Front Brake	6,440			J		131	1
00032	Statutory vehicle inspection	0		J				0
00119	Microfilter (consider further additional job(s) if appropriate)	0		J				

CBS-ID	Name	Status SAM preselected	selected / deslected	unchangeable	in Service Package	Identifier BSI Due Date	in Service Package billable	Recommendation	AW Amount	associated Work	Order ID
99999	Standard scope	J		Z	Z	Z	Z	Z	2	Z	
00001	Engine oil	J		Z	Z	Z	Z	Z	10	J	
00017	Vehicle check	Z		Z	Z	Z	Z	Z	6	Z	
00006	Rear Brake	Z		Z	Z	Z	Z	Z	11	Z	
00003	Brake fluid	Z		Z	Z	Z	Z	Z	4	Z	
00002	Front Brake	Z		Z	Z	Z	Z	Z	7	Z	
00032	Statutory vehicle inspection	Z		Z	Z	Z	Z	Z	0	Z	
00119	Microfiller (consider further additional job(s) if appropriate)	Z		Z	Z	Z	Z	Z	1	Z	



**FBM-Viewer**  
 List of Keydata

**Vehicle Defects**

Number of Error Memory Entries	2
Maximum of Error Memory Entries	
Number of responding ECU	2
Number of ECU with Error Entries	

**Extended Attributes**

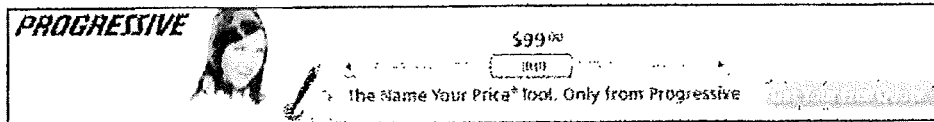
Name	Value	Text
typeCountry	2.0	US
topUpInformationEngineOil.cbsIdentifier	99901	
iLevel.iLevelHO	E89X-09-09-516	
dataConsistence3	255	
topUpInformationEngineOil.code	0	
dataConsistence1	255	
topUpInformationEngineOil.description	Engine oil level OK	
iLevel.iLevelBackup	E89X-09-09-516	
dataConsistence2	255	
iLevel.iLevelPlant	E89X-08-09-530	
iLevel.newLevelAvailable	false	
dataConsistence4	254	

**Vehicle Defects Detail 1**

DTC	ECU Address	PuMA Action
ABEC	0, null	
A8B6	0, null	



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### Your Blue Book® Value



## 2009 BMW 3 Series

Style: 335d Sedan 4D  
Mileage: 143782

### Private Party Value

Excellent  
**\$14,248**

Very Good  
**\$13,548**

Good  
**\$12,648**

Fair  
**\$10,248**

### Vehicle Highlights

MPG: City 23/Hwy 36

Doors: 4

Drivetrain: RWD

EPA Class: Compact Cars

Country of Origin: Germany

Max Seating: 5

Engine: 6-Cyl, Turbo Dsl, 3.0L

Transmission: Automatic, 6-Spd w/Overdrive & Steptronic

Body Style: Sedan

Country of Assembly: Germany

### Your Configured Options

Our pre-selected options, based on typical equipment for this car.

✓ Options that you added while configuring this car.

#### Engine

6-Cyl, Turbo Dsl, 3.0L

#### Transmission

Automatic, 6-Spd w/Overdrive & Steptronic

#### Drivetrain

RWD

#### Braking and Traction

Traction Control  
Stability Control  
ABS (4-Wheel)

#### Comfort and Convenience

Air Conditioning  
Power Windows  
Power Door Locks  
Cruise Control

#### Steering

Power Steering  
Telescoping Wheel

#### Entertainment and Instrumentation

AM/FM Stereo  
MP3 (Single Disc)

#### Safety and Security

Dual Air Bags  
Side Air Bags  
F&R Head Curtain Air Bags

#### Seats

Dual Power Seats  
Leather

#### Roof and Glass

Moon Roof

#### Lighting

HID Headlamps  
Daytime Running Lights

#### Wheels and Tires

Alloy Wheels

### New Cars You Might Like



2013 BMW 3 Series

## Glossary of Terms

**Kelley Blue Book® Trade-In Value** - This is the amount you can expect to receive when you trade in your car to a dealer. This value is determined based on the style, condition, mileage and options

indicated.

**Kelley Blue Book® Private Party Value** - This is the starting point for negotiation of a used-car sale between a private buyer and seller. This is an "as is" value that does not include any warranties. The final price depends on the car's actual condition and local market factors.

**Excellent Condition:** 3% of all cars we value meet this criteria. This car looks new and is in excellent mechanical condition. It has never had paint or bodywork and has an interior and body free of wear and visible defects. The car is rust-free and does not need reconditioning. Its clean engine compartment is free of fluid leaks. It also has a clean title history, has complete and verifiable service records and will pass safety and smog inspection.

**Very Good Condition:** 23% of all cars we value meet this criteria. This car has minor wear or visible defects on the body and interior but is in excellent mechanical condition, requiring only minimal reconditioning. It has little to no paint and bodywork and is free of rust. Its clean engine compartment is free of fluid leaks. The tires match and have 75% or more of tread. It also has a clean title history, with most service records available, and will pass safety and smog inspection.


**Good Condition:** 54% of all cars we value meet this criteria. This car is free of major mechanical problems but may need some reconditioning. Its paint and bodywork may require minor touch-ups, with repairable cosmetic defects, and its engine compartment may have minor leaks. There are minor body scratches or dings and minor interior blemishes, but no rust. The tires match and have 50% or more of tread. It also has a clean title history, with some service records available, and will pass safety and smog inspection.

**Fair Condition:** 18% of all cars we value meet this criteria. This car has some mechanical or cosmetic defects and needs servicing, but is still in safe running condition and has a clean title history. The paint, body and/or interior may need professional servicing. The tires may need replacing and there may be some repairable rust damage.

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**Observe the following when refueling**


 When handling fuels, follow the safety instructions provided at filling stations, otherwise there is a risk of personal injury or property damage. ◀

When refueling, insert the filler nozzle completely into the filler pipe. Avoid lifting the filler nozzle while filling the tank, as that would lead to

- ▷ premature pump shutoff
- ▷ reduced efficiency of the fuel-vapor recovery system.

The fuel tank is full when the filler nozzle clicks off the first time.

**Fuel tank capacity**

 Refuel as soon as possible once your cruising range falls below 30 miles/50 km, otherwise engine functions are not ensured and damage can occur. ◀


**Gasoline engine**

Approx. 16.1 US gallons/61 liters, including the reserve capacity of 2.1 US gallons/8 liters.

**Diesel engine**

Approx. 16.1 US gallons/61 liters, including the reserve capacity of 1.7 US gallons/6.5 liters.

**Fuel specifications****Gasoline engine: required fuel**

 Do not refuel with leaded fuel; otherwise, the catalytic converter will be damaged. Do not fill the tank with E85, i.e. fuel containing 85 % ethanol, nor with FlexFuel. Otherwise the engine and fuel supply system will be damaged. ◀

**Super Premium Gasoline/AKI 91**


This gasoline is highly recommended.

However, you may also use gasoline with less AKI. The minimum AKI Rating is:

- ▷ 323i, 328i/xDrive: 87


- ▷ 335i/xDrive: 89.

If you use gasoline with this minimum AKI Rating, the engine may produce knocking sounds when starting at high outside temperatures. This has no effect on the engine life.

 Do not use any gasoline below the specified minimum fuel grade. Otherwise the engine could be damaged. ◀

**Use high-quality brands**

Field experience has indicated significant differences in fuel quality: volatility, composition, additives, etc., among gasolines offered for sale in the United States and Canada. Fuels containing up to and including 10 % ethanol or other oxygenates with up to 2.8 % oxygen by weight, that is, 15 % MTBE or 3 % methanol plus an equivalent amount of co-solvent, will not void the applicable warranties with respect to defects in materials or workmanship.

 The use of poor-quality fuels may result in driveability, starting and stalling problems especially under certain environmental conditions such as high ambient temperature and high altitude.


Should you encounter driveability problems which you suspect could be related to the fuel you are using, we recommend that you respond by switching to a recognized high-quality brand such as gasoline that is advertised as Top Tier Detergent Gasoline.

Failure to comply with these recommendations may also result in unscheduled maintenance. ◀


**BMW Advanced Diesel: required fuel****Ultra-low sulfur diesel**


The engine of your BMW is designed for diesel with low sulfur content:

Ultra-low sulfur diesel ASTM D 975-07a.

 Refuel with ultra-low sulfur diesel only. The percentage of biodiesel in the fuel may not exceed 5%; this type of fuel is referred to as B5. Do not refuel with gasoline. After refueling with the wrong fuel, e.g. with gasoline, do not start the engine; otherwise, engine damage may occur. ◀

## Refueling

 Always switch off the engine before refueling, otherwise, fuel cannot be added to the tank and a message will be displayed. ◀

 Take all precautionary measures and observe all applicable regulations when handling fuel. Do not carry any spare fuel containers in your vehicle. They can develop a leak and cause an explosion or cause a fire in the event of an accident. ◀

### Fuel filler door


#### Opening



1. Open fuel filler door. To do so, lightly press the rear edge.
2. Turn the gas cap counterclockwise.
3. Place the gas cap in the bracket attached to the fuel filler door.

#### Closing

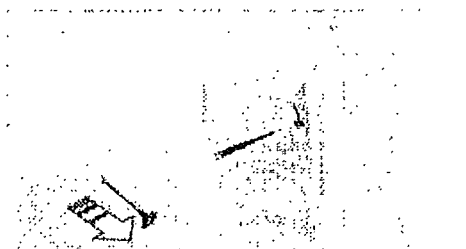
Fit the cap and turn it clockwise until you clearly hear a click.

 Do not pinch the band attached to the cap, otherwise the cap cannot be closed properly and fuel vapors can escape. A message will be displayed if the gas cap is loose or missing. ◀

#### Manually releasing the fuel filler door

In the event of a malfunction, you can release the fuel filler door manually:

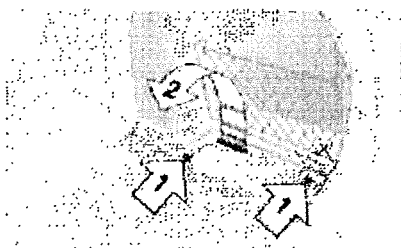
#### Sedan



1. Remove the cover from the right-hand side-wall of the cargo bay.
2. Pull the knob with the fuel pump symbol. The fuel filler door is released.

#### Sports Wagon

1. Fold up the cargo bay floor panel.
2. Remove the cover from the right-hand side-wall of the cargo bay. To do so, turn the screws, arrows 1, 90° and take out the cover, arrow 2.



3. Pull the knob with the fuel pump symbol. The fuel filler door is released.



**Observe the following when refueling**

When handling fuels, follow the safety instructions provided at filling stations, otherwise there is a risk of personal injury or property damage. ◀

When refueling, insert the filler nozzle completely into the filler pipe. Avoid lifting the filler nozzle while filling the tank, as that would lead to

- ▷ premature pump shutoff
- ▷ reduced efficiency of the fuel-vapor recovery system.

The fuel tank is full when the filler nozzle clicks off the first time.

**Fuel tank capacity**

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**Gasoline engine**

Approx. 16.1 US gallons/61 liters, including the reserve capacity of 2.1 US gallons/8 liters.

**Diesel engine**

Approx. 16.1 US gallons/61 liters, including the reserve capacity of 1.7 US gallons/6.5 liters.

**Fuel specifications****Gasoline engine: required fuel**

Do not refuel with leaded fuel; otherwise, the catalytic converter will be damaged. Do not fill the tank with E85, i.e. fuel containing 85% ethanol, nor with FlexFuel. Otherwise the engine and fuel supply system will be damaged. ◀

**Super Premium Gasoline/AKI 91**

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**Use high-quality brands**

Field experience has indicated significant differences in fuel quality: volatility, composition, additives, etc., among gasolines offered for sale in the United States and Canada. Fuels containing up to and including 10% ethanol or other oxygenates with up to 2.8% oxygen by weight, that is, 15% MTBE or 3% methanol plus an equivalent amount of co-solvent, will not void the applicable warranties with respect to defects in materials or workmanship.



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Should you encounter driveability problems which you suspect could be related to the fuel you are using, we recommend that you respond by switching to a recognized high-quality brand such as gasoline that is advertised as Top Tier Detergent Gasoline.

Failure to comply with these recommendations may also result in unscheduled maintenance. ◀

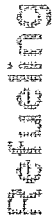
**BMW Advanced Diesel: required fuel****Ultra-low sulfur diesel**

The engine of your BMW is designed for diesel with low sulfur content.

Ultra-low sulfur diesel ASTM D 975-07a



Refuel with ultra-low sulfur diesel only. The percentage of biodiesel in the fuel may not exceed 5%; this type of fuel is referred to as B5. Do not refuel with gasoline. After refueling with the wrong fuel, e.g. with gasoline, do not start the engine; otherwise, engine damage may occur. ◀



If you refueled with the wrong fuel, contact your BMW center.



The filler neck is designed for refueling at diesel fuel pumps.

If the filler nozzle cannot be inserted into your BMW's filler pipe, please ensure that you are refueling at a diesel fuel pump and that it is equipped with a diesel filler nozzle. ◀

### Winter diesel

To ensure that the diesel engine remains operational in the winter, please use winter diesel, which is available at gas stations during winter months. The fuel filter heating system, included as a standard feature, prevents disruption of the fuel supply while driving.



Do not add additives, including gasoline; otherwise, engine damage may occur. ◀

## BMW Advanced Diesel

### The concept

BMW Advanced Diesel reduces nitrogen oxide in the diesel emissions of your vehicle by means of a mechanism that injects diesel exhaust fluid, a reduction agent, into the exhaust tract. A chemical reaction occurs in the catalytic converter that minimizes the nitrogen oxide content.

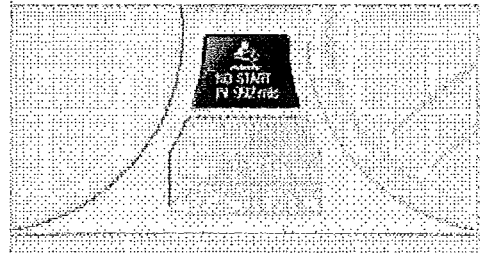
To be able to start the engine as usual, a sufficient amount of diesel exhaust fluid must be present in a separate reservoir.

### Warming the system

To warm the system to its operating temperature after starting with a cold engine, the automatic transmission delays shifting to the next higher gear, if necessary.

### Reserve display

A display in the instrument cluster informs you about the remaining distance you can drive with the fluid remaining in the reservoir.

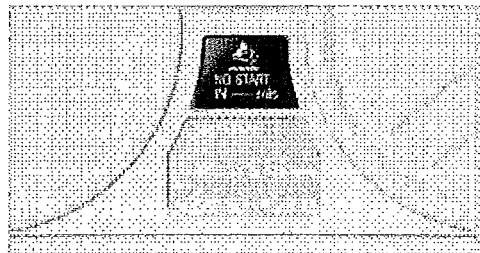


The reserve display appears beginning at approx. 1,000 miles/1,600 km before the supply is used up.



When this reserve display appears in the instrument cluster, have diesel exhaust fluid refilled to avoid not being able to start the engine. ◀

### Diesel exhaust fluid at the minimum level



Even if the display indicates ... miles, the engine continues running if it is not switched off and if all other requirements continue to be met, e.g. a sufficient supply of fuel.



Do not drive to the end of the indicated distance. Otherwise, it will not be possible to start the engine again after switching it off. ◀

### Wrong fluid



A warning lamp lights up:

The wrong fluid was filled into the reservoir.

Please contact your BMW center.

**Having diesel exhaust fluid refilled**

Diesel exhaust fluid is refilled by your BMW center during regular service. If the service intervals are adhered to, it generally does not need to be refilled between service appointments.

Under certain conditions, e.g. especially frequent accelerations or operation of the vehicle at high altitudes, it may become necessary to refill the fluid between service appointments.

When this reserve display appears in the instrument cluster, have diesel exhaust fluid refilled to avoid not being able to start the engine.

You can have the fluid refilled by a BMW center.

**Diesel exhaust fluid at low temperatures**

Because of its physical properties, it may be necessary to refill diesel exhaust fluid between regular service appointments at temperatures below +23 °F / -5 °C.

The need to add fluid is indicated by the reserve display in the instrument cluster; refer to page 192.

**Refilling diesel exhaust fluid in exceptional cases**

To be able to reach the next BMW center, you can refill diesel exhaust fluid yourself while adhering to the following warnings:

**!** Do not come into contact with diesel exhaust fluid as it can lead to skin or eye irritations. Wear goggles and gloves, if necessary. Follow the safety instructions on the bottle. Vapors with a sharp odor can escape from the bottle or container when it is opened. Before refilling, completely close the windows and doors of the vehicle to prevent the vapors from intruding into the interior. If handling diesel exhaust fluid in an enclosed area, ensure that the room is well ventilated.

After handling diesel exhaust fluid, wash your hands thoroughly; otherwise, inadvertently touching your eyes, for example, may lead to eye irritations.

If eye irritations occur, rinse the eyes thoroughly with water and consult a physician if necessary.

If diesel exhaust fluid comes into contact with the surface of your vehicle, rinse the affected areas with water to prevent surface damage. Keep diesel exhaust fluid away from children.

**Suitable diesel exhaust fluid**

Preferred: BMW Diesel Exhaust Fluid. Diesel exhaust fluid can be refilled conveniently with this bottle and its special adapter.

Alternatively: NOx reduction agent AUS 32. You can obtain diesel exhaust fluid from your BMW center.

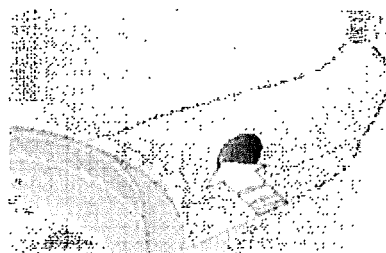
**Refilling quantity**

Refilling quantity when the reserve display first appears:

Approx. 1 US gallon/3.7 liters.

**Opening the diesel exhaust fluid reservoir**

1. Remove the cover in the bumper by pressing on it; see arrow.



2. Place the handle of the screwdriver from the onboard toolkit, page 222, onto the bottom cap and open the cap; arrow.





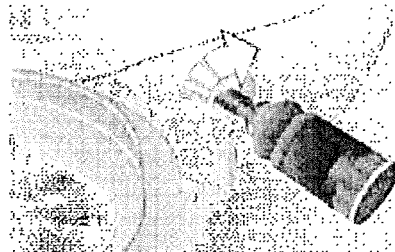
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### Refilling BMW Diesel Exhaust Fluid

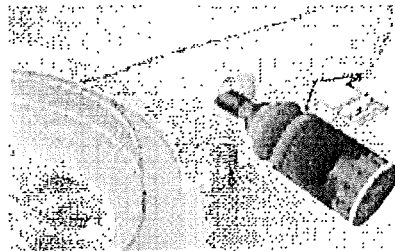
1. Attach the bottle and screw it all the way on, see arrow. The line on the bottle should point upward.



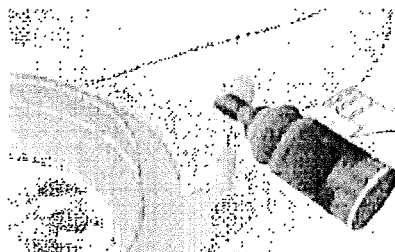
Hold the attached bottle to prevent the thread on the vehicle from becoming damaged by the weight of the bottle. ◀



2. Press the bottle toward the vehicle, see arrow. The reservoir in the vehicle is filled.



3. The reservoir is full when the filling level in the bottle stops changing. It is not possible to overfill the reservoir. Pull back the bottle, see arrow, and unscrew it.



### Closing the reservoir

After refilling, close the reservoir again using the handle of the screwdriver.

### After refilling diesel exhaust fluid

#### Wrong fluid



If you add the wrong fluid, e.g. antifreeze for washer fluid, do not start the engine; otherwise, there is a danger of fire. ◀

Contact your BMW center.

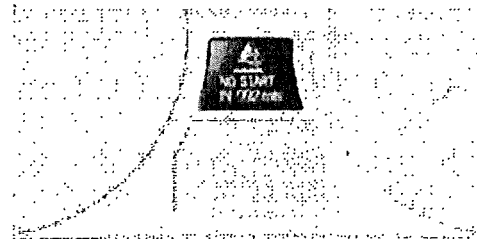
### Disposing of the bottle



You can dispose of the bottles for diesel exhaust fluid at your BMW center.

Only dispose of empty bottles in household refuse if local regulations allow. ◀

### Reserve display



After refilling, the reserve display continues to be displayed after the engine is started. It goes out after the vehicle has been driven for several minutes.